

THE CLAIMS

1. A medicinal delivery system for enabling the application of an antibacterial/antiviral foam producing composition to a topical or internal site of an individual, said delivery system comprising:
 - A. an antibacterial/antiviral/antimicrobial foam producing composition comprising
 - a. between about 0.1% and 60% by weight based upon the weight composition of at least one surfactant selected from the group consisting of polysorbate 20, cocamide DEA, polysorbate 60, polysorbate 80, ammonium or alkaline salts of sulfated aliphatic alcohols, ammonium or alkaline salts of sulfated aliphatic ethoxylated alcohols, cocoamido derivatives, ethoxylate aliphatic phenolics, sarcosinates, sodium lauryl sulfoacetate, sodium lauryl sarcosinate, and vegetable oil based soaps;
 - b. an effective amount of at least one therapeutic agent selected from the group consisting of silver nitrate solutions, silver nanocrystals, colloidal silver, colloidal silver solutions, and equivalents thereof, and
 - c. water forming the balance; and

- B. a container for dispensing the therapeutic agent as an integral component of the foam mousse for direct application of the foam mousse to the skin and/or an internal site of an individual, said container comprising one selected from the group consisting of finger actuated foam producing valve bearing containers and squeeze bottle foam producing containers.

2. The medicinal delivery system defined in Claim 1, wherein the therapeutic agent is further defined as comprising a combined solution of colloidal silver in water, with the colloidal silver comprising between about 10 and 32 parts per million.

3. The medicinal delivery system defined in Claim 2, wherein the therapeutic agent comprises between about 40% and 99.8% by weight based upon the weight of the entire compositions.

4. The medicinal delivery system defined in Claim 3, wherein the surfactant is further defined as comprising between about 0.1% and 30% by weight based upon the weight of the entire composition of at least one selected from the group consisting of sodium lauryl sulfoacetate, sodium lauroyl sarcosinate, and vegetable oil based soap.

5. The medicinal delivery system defined in Claim 4, wherein the combined solution of colloidal silver in water is further defined as comprising between about 99% and 99.8% by weight based upon the weight of the entire composition.

6. The medicinal delivery system defined in Claim 5, wherein the surfactant is further defined as comprising between about 0.2% and 1.0% by weight based upon the weight of the entire composition of at least one selected from the group consisting of sodium lauryl surfacetate and sodium lauroyl sarcosinate.

7. The medicinal delivery system defined in Claim 1, wherein said therapeutic agent is further defined as comprising between about 0.05% and 1% by weight based upon the weight of the entire composition of silver nanocrystal powder.

8. The medicinal delivery system defined in Claim 7, wherein the surfactant is further defined as comprising between about 0.5% and 5% by weight based upon the weight of the entire composition of one selected from the group consisting of sodium lauryl sulfoacetate and sodium lauroyl sarcosinate.

9. The medicinal delivery system defined in Claim 8, wherein the foam producing composition further comprises between about 20% and 35% by weight based upon the weight of the entire composition of at least one additive.

10. The medicinal delivery system defined in Claim 9, wherein said additive is further defined as comprising one selected from the group consisting of propylene glycol and denatured ethanol.

11. The medicinal delivery system defined in Claim 1, wherein said system further comprises:

- C. a delivery nozzle or cannula mounted to the container and comprising:
 - a. an elongated tube portion having an overall length constructed for ease of insertion into an orifice communicating with a cavity of the human body, said overall length being constructed to assure the complete insertion of the tube portion into the cavity without injuring any surrounding tissue; and
 - b. at least one aperture formed along the distal end of said elongated tube portion for enabling the medicinal foam composition to be dispensed from the container through the tube portion directly to the desired site.

12. The medicinal delivery system defined in Claim 11, wherein said delivery nozzle or cannula further comprises an enlarged surface formed adjacent the proximal end thereof, for providing a positive stop for said tube member in order to prevent over-insertion of said tube member into the cavity.

13. The delivery system and defined in Claim 11, wherein said elongated tube portion is further defined as being formed from flexible material in order to assure ease of use and insertion thereof into the human body for being positioned in the precisely desired location.

14. The delivery system defined in Claim 11, wherein said container further comprises closure means comprising one selected from the group consisting of caps and finger-operated dispensing valves, and the delivery nozzle/cannula is further defined as being securely affixed to said closure means in a manner which prevents dislodgement thereof from said closure means.

15. The delivery system defined in Claim 14, wherein the elongated tube portion of the delivery nozzle/cannula is further defined as comprising a tapered outer surface with a smaller diameter section being formed at the distal end thereof for further assisting in providing ease of insertion and positioning of the tube member in the desired orifice.

16. The delivery system defined in Claim 14, wherein the elongated tube portion of the delivery nozzle/cannula is further defined as comprising a substantially uniform diameter throughout the entire length thereof, with the distal end of said tube portion being smoothly rounded to assure ease of insertion into the desired orifice without injuring any surrounding tissue.

17. The delivery system defined in Claim 11, wherein said container is further defined as comprising a thin walled, flexible construction and said closure means comprises a cap member affixed to the portal of the container for enabling the foam producing medicinal composition in said container to be dispensed directly to the desired internal site in the human body by inserting the elongated tube portion into an orifice of the human body, advancing the tube portion into the cavity associated therewith and enabling the foam producing medicinal composition to be dispensed directly to the desired site as a foam mousse in response to pressure ~~is~~ being applied to the thin walled, flexible container.

18. The delivery system defined in Claim 17, wherein the elongated tube portion comprises an elongated delivery channel formed by the internal diameter thereof which is constructed for controlling the delivery pressure produced by squeezing the flexible container.

19. An all natural foam mousse producing medicinal composition constructed for use on an individual's skin surface and/or internally, said composition comprising

- A. between about 10% and 50% by weight based upon the weight of the entire composition of a vegetable oil based soap;
- B. between about 50% and 90% by weight based upon the weight of the entire composition of water;
- C. between about 0.3% and 2% by weight based upon the weight of the entire composition of lanolin; and
- D. an effective amount of at least one therapeutical agent selected from the group consisting of silver nanocrystals, silver nitrate solutions, colloidal silver, colloidal silver solutions, and equivalents thereof.

20. The all natural foam mousse producing composition defined in Claim 19, wherein the vegetable oil based soap is further defined as comprising one selected from the group consisting of palm kernel oil and coconut oil.

21. The all natural foam mousse producing composition defined in Claim 19, wherein the therapeutic agent is further defined as comprising a combined solution of colloidal silver in water, with the colloidal silver ranging between about 10 and 32 parts per million.

22. A method for providing the delivery of a medicinal, anti-bacterial/antiviral foam mousse composition to a desired site of an individual comprising the steps of:

- A. dispensing a medicinal foam mousse from a container housing a medicinal foam producing composition, said composition comprising
 - a. between about 0.1% and 60% by weight based upon the weight composition of at least one surfactant selected from the group consisting of polysorbate 20, cocamide DEA, polysorbate 60, polysorbate 80, ammonium or alkaline salts of sulfated aliphatic alcohols, ammonium or alkaline salts of sulfated aliphatic ethoxylated alcohols, cocoamido derivatives and ethoxylate aliphatic phenolics, sarcosinates, sodium lauryl sulfoacetate, sodium lauroyl sarcosinate, and vegetable oil based soaps;
 - b. an effective amount of at least one therapeutic agent selected from the group consisting of silver nitrate solutions, silver nanocrystals, colloidal silver, colloidal silver solutions, and equivalents thereof, and
 - c. water forming the balance; and
- B. applying the medicinal foam mousse onto a desired surface;

whereby the desired surface is imparted with an antimicrobial treatment for reducing and/or killing bacteria, viruses, funguses, and the like.

23. The method defined in Claim 22, wherein said surface is further defined as comprising one selected from the group consisting of skin, human tissue, human cells, fabric, filters, carrier sheets, non-woven material, woven material, plastic material, medical devices, stints, bandages, sutures, and the like.

24. The method defined in Claim 23, wherein the application step is achieved by spraying the foam mousse onto a desired surface.

25. The method defined in Claim 23, wherein the therapeutic agent comprises colloidal silver solutions and the colloidal silver solution is applied to the desired surface by employing one process selected from the group consisting of spraying and dipping and then drying prior to use.

26. An antibacterial/antiviral/antimicrobial foam producing composition comprising:

- A. between about 0.1% and 60% by weight based upon the weight composition of at least one surfactant selected from the group consisting of polysorbate 20, cocamide DEA, polysorbate 60, polysorbate 80, ammonium or alkaline salts of sulfated aliphatic alcohols, ammonium or alkaline salts of sulfated aliphatic ethoxylated alcohols, cocoamido derivatives, ethoxylate aliphatic phenolics, sarcosinates, sodium lauryl sulfoacetate, sodium lauryol sarcosinate, and vegetable oil based soaps;
- B. an effective amount of at least one therapeutic agent selected from the group consisting of silver nitrate solutions, silver nanocrystals, colloidal silver, colloidal silver solutions, and equivalents thereof, and
- C. water forming the balance.

27. The medicinal delivery system defined in Claim 26, wherein the therapeutic agent is further defined as comprising a combined solution of colloidal silver in water, with the colloidal silver comprising between about 10 and 32 parts per million and between about 40% and 99.8% by weight based upon the weight of the entire compositions.

28. The medicinal delivery system defined in Claim 26, wherein the surfactant is further defined as comprising between about 0.1% and 30% by weight based upon the weight of the entire composition of at least one selected from the group consisting of sodium lauryl sulfoacetate, sodium lauroyl sarcosinate, and vegetable oil based soap.

29. The medicinal delivery system defined in Claim 26, wherein said therapeutic agent is further defined as comprising between about 0.05% and 1% by weight based upon the weight of the entire composition of silver nanocrystal powder.

30. The medicinal delivery system defined in Claim 29, wherein the surfactant is further defined as comprising between about 0.5% and 5% by weight based upon the weight of the entire composition of one selected from the group consisting of sodium lauryl sulfoacetate and sodium lauroyl sarcosinate.